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ABSTRACT

According to this paper, the future will offer human beings the choice of becoming bees or architects. Although the bee-like way of treating teachers and students in schools came from American industry, the chances for shifting toward the architect/creative side may now be better in industry than in the schools. The practice of treating children's learning as a measurable production function, assuming that "teaching is teaching for tests," is shown to be crazy-making and damaging to teacher creativity. Just as industry was discovering the sociotechnical theory of work as a democratic alternative to scientific management, educational planners became even more dedicated in their search for technical fix solutions. This observation is amplified by a discussion of some empirical data collected by a group of Massachusetts teachers and by some insights of the late French social theorist, Michel Foucault. A 1986 Boston Women's Teachers Group study concluded that teachers' feelings about burnout, isolation, job satisfaction, and efficacy were rooted in school-based working relations and institutional structures. Teacher stress is an institutionally derived problem, not a result of individual personality failures. What Foucault terms the "panopticon rationale" has created a modern-day apparatus of uninterrupted examination that is destructive to true learning. (This same deskilling and degrading of work can be found in the electronic oversurveillance of individual workers.) This trend must be countered, as in Detroit, by introducing democratic socio-technical work theory in the schools. Otherwise, the bees will prevail. (MLH)

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The Violation of People at Work in Schools

The Charles DeGarmo Lecture for

the Society of Professors of Education

at New Orleans, April 6, 1988

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

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I have been a teacher educator who has taken an eight year detour into the world of American work. I think that there are parallel issues in work and in schools that we ought to be aware of.

A couple of quotations set themes I'll be referring to. The first is by Harriet Henderson, maverick economist: "For the first time in history morality has become pragmatic."[1] That's the good news. It has become practical to act morally. The bad news is that we may not be insightful or courageous enough to act on it.

The second is by Mike Cooley, President of the British Union of Engineers, who one sunny morning on the banks of the Thames, gave me this quote from a book he was writing:

> Either we will have a future in which human beings are reduced to a sort of bee-like behavior, reacting to the systems and equipment specified for them; or we will have a future in which masses of people, conscious of their skills in both a political and technical sense, decide that they are going to be the architects of a new form of technological development which will enhance human creativity and mean more freedom of choice and expression rather than less. The truth is we shall have to make the profound decision whether we intend to act as architects or bees.[2]

The choice between architect or bee confronts us in both American schools and work. It is true that the bee-like way of treating teachers and students in schools came from American industry. Unfortunately the chances of shifting toward the architect side may be better in American industry than in the schools.

The "violation of people" got in my title because institutions which treat us like bees violate who we are as human beings. Ernest Becker in The Structure of Evil helped me see that. Becker pointed out that since the rise of science and the Enlightenment in the seventeenth and eighteenth centuries we have been

confronted by two major images of humans: 1'homme machine (the human as mechanism) and homo poeta (humans as meaning makers). The Newtonian image of the world as a physical mechanism moving according to mathematically regulated laws of force and motion gave powerful support to tendencies to see humans as manipulable objects within the grand mechanical design. That view was captured nicely by the eighteenth century philosopher Julien Offray de la Mettrie in his phrase 1'homme machine. The problem with that concept, according to Becker, is that it is in violation of our deeper needs as homo poeta (humans as meaning makers). We create structures of evil, Becker said, whenever we create institutions which deny persons the opportunity to stage the world so they can act in it creatively as meaning makers.[3] In our time such institutions are not only immoral; they are also impractical because our chance of meeting successfully the problems of turbulent change of the momentous transition period we are now in depends on utilizing the full range of our creative strengths as homo poeta.

It has taken me awhile to see things this way. In the late seventies I was aware of the growing concern about lowered productivity in both American industry and schools. I was aware, also, of the new press by educational policy makers to start treating children's learning as a measurable production function -- with the assumption that the only learning that counts is learning that can be counted, and the parallel assumption that teachers will be made accountable in terms of test score results.

What disturbed me was my growing awareness that the teachers I thought of as the most committed and creative were becoming demoralized and thinking of quitting. Some of the rest were cheating to beat the test score pressures.

As parents we had learned that the best bet for getting our own kids "hooked on learning" was to have them with teachers whose creative energies were engaged — teachers who worked from what the Greeks called their entheos, the personal God within which is the source of enthusiasmos or enthusiasm. If the new reductionist

emphasis — "teaching is teaching for tests" — did damage to that, and in addition taught children that adults will cheat when fearful and resentful, then I assumed that something crazy and crazy-making was going on.

It was obvious that the new systems efficiency rationale was coming from the scientific management tradition in industry at a time of new fears about growing foreign competition. The question occurred to me, "If the scientific efficiency rationale is having crazy-making effects in schools is anyone in management questioning its effects?"

About that time I was asked to join a new interdisciplinary Human Resource Management program at the university which helped me to get in touch with the new thinking emerging in American industry. I found that while American management was split, and still is, advanced thinkers in industry and labor were beginning to hold that the scientific efficiency rationale was itself the source of productivity problems. These industry leaders in effect were saying to school people, "No, not that way! We're going the other way — that-a-way."

So I began my detour into American industry. It took me into fascinating places, from a pioneering auto-mirror plant in Bolivar, Tennessee, to Work Research Institutes in Oslo, Stavenger and Trondheim, Norway, to Sweden, to auto plants in Tarrytown, New York, Flint and Detroit, and to Anheuser Busch think tanks in St. Louis.

In Productive Work in Industry and Schools I described what I found. The alternative to scientific management was an emerging democratic socio-technical theory of work which claimed that the dominant management tradition is guilty of the technical fix error, i.e., the assumption that all system problems will yield to technical type solutions. The new theorists were arguing that the reality of a human work system is that it is "socio" as well as "technical." "Socio" refers to the purposive, idea-generating, communicative-collaborative aspect of human beings.[4] The main-line efficiency model is out of touch with this dimension of reality, or worse yet violates it.

All of this gave me insight into what was crazy-making. To be out of touch with reality is crazy. Rational efficiency models are out of touch with the uniquely human "socio" dimension of human work — the homo poeta dimension.

A vice president of General Motors in charge of new plant design helped me get the point. "GM used to boast," he said, "that the production line had been broken down into segments so small that any task could be taught in fifteen minutes or less; any idiot could do it. If workmanship and morale were poor, the answer was to step up supervision and control. GM is now convinced," he said, "that a model based on increased control by supervisors, of a bored, reluctant work force which produces shabby products is not viable for survival."

The Oxford dictionary gave me further insight. "Crazy" comes from the old Norwegian word krasa which means crushed or fragmented — not together. It showed up in fragmenting human work so that idiots could do it. It showed up in transforming school learning into information bits that would yield good test scores and ruin the enthusiasm and morale of teachers and students.

Where are we in industry and education by the end of the eighties? Management and labor are still split, but as we all know industry has made moves toward participative work design which assume that both the "socio" and the "technical" have to be taken with equal seriousness.

What about American schools? It is hazardous, of course, to make generalizations about the sprawling American school phenomenon, where happily many things different from what I am describing are also going on. But a safe guess is that for a large number of educational planners the search for technical fix solutions is strongly under way.

To amplify the argument I want to turn to two very different types of materials: (1) some empirical data collected by a group of Massachusetts teachers and (2) some insights from the late French social theorist Michel Foucault.

First, the material from the 1986 research study by the Boston Women's Teachers Group, "The Effect of the Institutional Structure of Schools on Teachers." The study was based on in-depth, 15 hour interviews of 25 women elementary school teachers over a two year period. About half of them had taught for 15 years, the other half less. They were selected to match substantially the national teacher population in terms of socio-economic and racial background, marital status, educational attainments and father's occupation within the limitations of the small sample. They had taught in impoverished urban schools as well as in affluent systems.

Lengthy analyses of the data over many months led the teacher researchers to conclude that teachers' feelings with regard to burn-out, isolation, job satisfaction, and sense of efficacy were rooted in the working relations and institutional structures of the schools. In their words, "Teacher stress is an institutionally derived problem not a result of individual personality failures, as teachers have been led to believe."[5]

I can only sketch a profile of what they found. Since the study illustrates what I have called "crazy-making" and "violation of people" I shall make a rough sort according to these categories. They are not unrelated.

First, "crazy-making," referring to that which is crushed or fragmented or out of touch with reality. I'll indicate whether each statement is a "commentary" by the researchers, or a teacher "statement":

Researcher Commentary: Teachers work in an institution which holds, in its rhetoric, that questioning and debating, risk and error develop one's thinking ability. But learning stituations are structured to lead to one right answer, and both teachers and students are evaluated in ways that emphasize only quantifiable results.

Teacher: The worst thing is that you get this printout and you're expected to find the profile of each individual child and then find material on those specific skills that they have to master... and then they take a multiple choice test where they have to choose a, b, or c. Well, the kids glance at the choices and figure out that one of those endings make a pretty good answer. They never read the whole sentence. They're used to a world of filling blanks without it meaning anything. I mean it's meaningless work.

Teacher: This year my principal's evaluation said this: "Five kids looked up from their work and looked out of the window within a five-minute period. Now if you multiply five kids and five minutes in a period and you place it in an hour you get the percentage who are not doing their work and not involved."

Massachusetts is not alone in imposing this style. Deborah Meier, Director of the Central Park East High School in New York City, reports how evaluators prescribed hundreds of specific written goals. Example: "given teacher supervision, praise and positive reinforcement, the student will attend to difficult assignments for five minutes, three times out of four as recorded by teacher."[6] Now, I ask, who's crazy?

And now some commentary which points to "violation of persons" as <u>homo poeta</u>.

Researcher Commentary: Teachers were continually perplexed by the admonition to be <u>professional</u> while the area in which their expertise could be applied became narrower and narrower.

Teacher: The thing that aggravates me is that we as educators are not treated as adults.... They check up on you like you're children.... They walk into your room and you have to be within minutes of where your program card says.

Teacher: Every Tuesday is a half day for faculty meetings.... People sit there deadpan because they don't want to commit themselves, you know, get themselves into any kind of hot water. Most of the stuff comes down from the central office that is really separate from the actual core of teaching.

Teacher: One of the things that has bothered me about the hurried pace of teaching today is that a lot of the creativeness is taken away from you — the feeling that I'm going to think of a new, fresh way to do it. The curriculum gets reduced to: "Here is a book and teach it. You should be on page 200 by such and such a date." It has nothing to do with your kids and nothing to do with whatever ideas you might want to bring in.

Teacher: I think the merit evaluation is even worse than seniority. Oh, my God. In this particular school it has destroyed any type of relations. I mean you look at the person next door to you and you say, "Gee, I wonder how many points she has." So instead of encouraging teachers to be more open about what they're doing, there isn't one bit of sharing. When you're in competition for your job, you're pitting one person against another. I think in this business you can't do that. Because we tell the kids that everybody is unique.

Teacher: I started seeing myself not taking the risks I used to. I used to do all kinds of interesting things with my students -- build things all over the classroom. But every once in a while someone would notice that the classroom wasn't as neat as it should be ... and since anything can be pointed to, you start to retrench. You feel a lack of growth and you look around. And I decided to leave.

This teacher left. For those who stay there are heavy pressures to yield to the technocratic rationale.

Researcher Commentary: The teacher, under attack for failing to help children reach arbitrary grade level goals, accedes to the greater wisdom of the commercial test makers and the research academics. Once started on the road to quantification, the method becomes addictive....

The new objective type teacher evaluations that have been introduced are examples of such quantitative methods. They take great pains to code and enumerate the type, number and direction of the interactions of the teacher with her pupils within the classroom.

The more quantitative measures and national exams are used to evaluate the teacher, the more she will feel the need to use such quantitative methods to judge her students and other teachers. She is now the in-class representative of the national norms and country-wide bell curves. Once she has entered the child's progress in her book, both she and her pupils are assumed to be easily understood and evaluated.

The same factors work on students. There is John Goodlad's famous observation that not even 1% of the instructional time in classes is devoted to discussion that "required some kind of open response involving reasoning or perhaps an opinion from students ... the extraordinary degree of student passivity stands out."[7]

An example was furnished to me by Rita Roth from her observation journal:

Teacher: Why aren't you doing your work, Alphonse?

Alphonse: I thought we were going to read today.

Teacher: That's what we did -- you just had reading group.

Alphonse: But I thought we would read today.

Teacher: We just did, Alphonse. We looked for 's' sounds in your book, did two 's' sheets in your workbook and here is the worksheet you should be doing right now to find some more 's' words.

Alphonse: But I thought we would read today, you know READ read.[8]

Deborah Meier's comment on the parallel experience of New York City teachers once more is relevant: "... predictable multiple-choice questions replaced conversation about books. Reading scores went up, literacy collapsed.... Improved test scores, alas, are best achieved by ignoring real reading activity."[9]

We need to note that something profoundly important is contained in these statements of Alphonse and Deborah Meier. Hans-Georg Gadamer in Reason in an Age of Science reminded us that the right to converse — to dialogue with texts and each other in reaching for understanding about the world and ourselves is the unique, distinctive characteristic of being human.[10] It is what Alphonse was asking for in his request to "Read read." To diminish the right to that kind of learning by trivializing instruction is, I believe, a human rights violation of both students and teachers.

I have talked with many teachers who have expressed a feeling of helplessness about being able to articulate what is wrong with the model being forced on them. It seems so reasonable. An applicant to a medieval shoemakers' guild would be told: "You say you are a shoemaker — make a shoe." In a twentieth century culture obsessed with bottom line results it is assumed that reading teachers can be made accountable by simply telling them to "show us your reading scores results." What possibly can be wrong with that?

The issue, Denis Goulet suggests in The Uncertain Promise: Value Conflicts in Technology Transfer is not whether to be for or against efficiency, but what kind of efficiency for human institutions? Western engineering type efficiency which

worked wonders in closed mechanical systems by simple measures of inputs to outputs can be dangerous to well-being in non-mechanical human systems. What we now need, says Goulet, is to explore ways of becoming integrally efficient: how to produce efficiently while optimizing socia and human values.[11] Integral efficiency would tell us that if we are teaching so that scores are going up, and real reading is going down we ought to stop it because it is inefficient.

Now I want to refer briefly to what I learned from the French social theorist Michel Foucault, who in Discipline and Punish helped me see why the rational efficiency assumptions seem so unassailable. The great truth we must constantly hold before ourselves, said Foucault, is the realization that the reason or rationality of the Enlightenment which gave us the liberties, also invented the disciplines.

Foucault showed that, from the seventeenth and eighteenth century onward, there was a virtual take-off in the increase of calculated power to control people in state apparatuses like the army, prisons, tax administration, etc.

A vivid example is the transformation of the rowdy soldiers of the late middle ages into the 18th century redcoat type soldiers who could be constructed into automatons by minute attention to detail in their training. As modern soldiers they will be taught to remain motionless, never to look at the ground and to move on command with bold, uniform steps, later to become the goose step. "Very good," Grand Duke Mikhail remarked to a regiment, after having kept it for an hour presenting arms, "Only they breathe."[12]

We find the new controls also, says Foucault, in the fashioning of the late seventeenth century Christian Brothers Schools for the poor. Jean Baptiste de la Salle, the founder, said, "How grave and dangerous is the task of teachers in the Christian Schools.... We must be concerned above all with the little things, the minute things in the lives of our students and their teachers. The little things lead to great results." Foucault adds, "The meticulousness of the regulations, the

fussiness of inspections, the supervision of the smallest fragments of life and of the body will soon provide, in the context of the school, the barracks, the hospital or the workplace a technical rationality for the mystical calculus of the infinitesimal."[13]

Foucault noted that Jeremy Bentham's panopticon proposals for prisons, factories or schools in the early 1800's embodied the technically thought out disciplines required in the modern era. Panopticon comes from the Greek words pan, everything, and opticon, a place of sight. Thus, a place of sight to see everything. The general idea included a basic circular building, with cells for individual subjects around the inside of the circumference. In the center, facing the cells, is an Inspector's Tower with windows looking down on the cells. The observatory room at the top was constructed with a line of sight so that the Inspector could see all, while being invisible to the inmates below. Thus, the basic principle was that "the persons to be inspected should always feel themselves as if under inspection."[14] The person to be supervised must never know if at any moment he is actually being observed; at the same time he must constantly feel that he might be. "He is seen, but he does not see, he is the object of information, never a subject of communication."[15] The guiding concept, says Foucault, is the ideal of the Perfect Gaze: the Gaze that can see everything constantly. It employs three instrumentalities: (1) hierarchical surveillance -- all of those intrusive Gazes from the central office, (2) normalizing judgment aimed at securing conformity, and (3) the examination. The gist of his argument is in his comments on the examination by which individuals may be measured, classified, and judged. In the examination, says Foucault, we can find a whole domain of knowledge and type of power: (a) through techniques of the examination individuals are made visible -- subject to "the gaze," and made into objects for measurement; (b) by documentation individuals and groups are encoded in written reports and files; they are organized into registers, classifications and cumulative systems; (c) by

collecting documentary records on each individual, each is individualized as a case and becomes an object of knowledge and power.

The examination is now pervasive in modern institutions and is notably present, said Foucault, in the growth of larger, more systematized modern schools. The school has become, in fact, a sort of apparatus of uninterrupted examination, increasingly an arena for "a perpetual comparison of each and all that make it possible both to measure and judge...."[16] My New York state informants tell me that a regent's student will take 29 state required examinations in 12 years. Only two years in the elementary school will be free of state required examinations. The extension of the panopticon rationale throughout the society coincided, Foucault says, with the rise of the human sciences. In line with the ideal of the Gaze, quantitative test scores and record keeping created the conditions for a technical matrix which changed discourse about policy issues into the neutral language of science. In schools, for example, talk about problems is limited to the lexicon of technocratic ideology. Thus teachers are taught to think of classrooms as management systems, and to talk about their teaching in terms of performance objectives, system components, sequencing of instruction, etc. When the terminology of technical experts takes over, teachers may feel mute in the face of it: "Who are we to question scientific expertise?" If the system breaks down and doesn't work the only answer of pan-opticon technicians is to do more of the same.

But retreat into acquiescence is not the only response. Resistance does break out: at work — in strikes, sabotage, and drug abuse; among teachers -- as witnessed by the Massachusetts Women's Research Study; by a marvelous gadfly newspaper, Rethinking Schools, by Milwaukee teachers who are in rebellion against damaging, bureaucratic intrusions which harm their work; in Harold Berlak's Democratic Schools, providing a communication network for English, Canadian and American teachers who resist the megamachine; and George Woods' lively Institute

for Democratic Education at Ohio University. Foucault would not be surprised. He predicts resistance because, he says, panopticon manipulation and domination violate our human needs for autonomy and freedom.

In industry there is a growing awareness that panopticon violation of people is impractical as well as immoral. There is, for example, the 1988 Office of Technology Assessment's massive report, Technology and the American Economic Transition.[17] The O.T.A. says that we face a conjunction of two epochal events: (1) the acceleration of the electronic information revolution and (2) the fact that we now have to compete for economic survival in the one world market. The challenge is how to confront turbulent change -- change which is rapid and unpredictable. Our greatest need and asset is for a well-educated committed work force fully engaged in flexible interactions with high tech equipment.

Since I began ten years ago there has been a rapid expansion of awareness by some major corporations of the need to tap the brains of people at work -- to move toward democratic socio-technical work design. There is, for example, the plan for production of Saturn, G.M.'s "car of the future." The goal is to lay the ground work for combining robotics with a new style of work relationships. The agreements worked out with the U.A.W. change the status of assembly-line workers from hourly laborers to salaried employees. Union workers in small production work units will be involved in decision-making processes that formerly were the prerogatives of management. They will perform their own quality control with electronic equipment.[18]

If you compare work-places like this with accountability routinization in the schools, which drives creative teachers to despair, it doesn't take a genius to see who is out of step.

A growing number of major leaders in industry and labor are becoming aware of the discrepancy. The 1985 statement Investing in our Children[19] by the Committee

for Economic Development (C.E.D.) is a case in point.* C.E.D. members include executive officers from major American corporations that are being transformed by the rush of computer technology. They are forthright in declaring that a work force educated by "old school basics" will not be equipped for meeting challenges of turbulent change.

The report presents the case of Proctor and Gamble as prototype. The strong trend now is for employees to perform a broad range of tasks including operating and maintaining equipment, performing their own quality controls, and participating in goal setting, problem-solving, and budgeting.

With this view of work in America the report calls for "nothing less than a revolution in the role of the teacher and the management of schools." High-tech firms, they say, are not served well by centralized rigid bureaucracies which are hostile to needed creativity. They stifle it because their goal is to keep control in the hands of centralized authority. The essential obligation of organizations in the new era is "to nurture creativity." School policy makers must learn the lesson of industry: Give employees a stake in the system by decentralizing decision making to the lowest possible level.

The interaction of teachers, students, and administrators in individual schools becomes the key arena for action. The report assumes that able people will not choose teaching, nor choose to remain in it, if they are stifled by bureaucratic regimentation, or shackled with "teacher-proof" materials. Teachers as creative actors will respond only if they are given a chance to exercise judgment and to re-shape their own working environment. The authors ask for a view of teachers as carriers of liberal culture with a responsibility to teach higher order learning — to think analytically, to cooperate as well as to compete, to assume responsibility, and to learn to learn.

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*I have been critical of the repot in the 1987 NSSE Yearbook, Society as Educator in an Age of Transition. Here I report only on aspects relevant for the topic at hand.

They shy away from "merit plans" which often undermine collegial relations. Teachers working in a largely competitive environment, they say, will be less inclined to support the feeling of community that is essential for effective schools.

Change in the corporate work world is widespread enough to lead to such recommendations. It would be a gross oversimplification, however, to assume that the issue about work in corporate life itself has been settled in this happy fashion.

Since many corporations continue the narrow scientific management tradition, the issue of whether we will choose to become architects rather than bees is very much in doubt. The Office of Technology Assessments (O.T.A) says that a major challenge for both corporations and schools will be how they choose to make use of swiftly evolving computer technology.

Technology and the American Economic Transition says that micro-electronic robotics and telecommunication technology combined with democratic work styles can provide an opportunity to revitalize the competiveness of American industry. A work force with high morale linked to imaginatively designed technology can move us toward an economy of high tech, high-skilled, high wage industries.[20] But don't bet the family savings on it. Our habits and the control needs of those in charge push us toward rational, bureaucratic management. With this bias, computer electronics can become a force to intensify hierarchical controls and surveillance.

A Ted Koppel program, "Surveillance of the Job"[21] illustrated the new electronic monitoring of performance of airline representatives. One of the agents reported how she worked under a demerit system monitored by a computer. If she spends an average of more than 109 seconds talking to a customer about reservations or fares she gets one demerit. If she spends more than 11 seconds in between customers she gets two demerits. After 12 seconds a light flashes on the supervisor's board who comes in then with, "Anything wrong? May I help you?" Six

demerits earns a warning; thirty-six, dismissal. Another agent reported the monitoring of her time between calls. When she was heard saying a swear word to herself it was evaluated as "evidence of a bad attitude."

Six million clerical workers are now being watched by the unblinking gaze. Another four million technical and managerial people are about to be electronically evaluated in the next few years. We come closer to what Gadamer saw as the ultimate nightmare — when science expands into a total technocracy.[22]

We may take the road of deskilling and degrading work. The Office of Technology Assessment says that if we do, we ought to know its consequences. It not only downgrades American work and lowers our standing of living, but often includes sending hardware and software overseas to exploit the cheap labor and vulnerability of third world women. It increases the gap between technical-managerial elites and a growing body of de-skilled workers, often non-white. As it excerbates dualist divisions in the society and treats millions with disrespect, it violates the values of the democratic tradition.

But the O.T.A. report says a comparable issue will appear in the near future in education. The evidence of serious inadequacies in the technical skills of basic literacy and numeracy of American students is clear. O.T.A. recommends that we undertake a major research effort immediately to explore how the new potential of computer enhanced instruction might help us with the stubborn problems of skill training and conceptual learning. It envisions two major policy choices. The first, which it warns against, is to aim for a uniform, national curriculum and examination system to which teachers everywhere will be made accountable. One of the major computer companies is now moving to what could become state-wide or even nation-wide main frames through which uniform instructional materials could be piped. Electronic monitoring of scores could "keep book" on teachers and schools everywhere.

The other approach which O.T.A. recommends is illustrated in an experiment by Apple, Inc. Apple, for example, in anticipating the near universal availability of computers ten years from now, has created "computer-saturated" classrooms in seven different school communities throughout the U.S., e.g., a Black urban school in Memphis, a rural school in Minnesota, and a Cupertino, California school in Silicon Valley itself. Students and teachers are provided with individual Macintosh computers at home as well as at school. Apple operates on the assumption that the culture of each school is different, and that teachers in each setting should be free to experiment with usages to help meet their own broader educational goals. In those seven different schools seven different strategies and designs are emerging. I could feel excitement and commitment by staff and students in the setting at West High School in Columbus, Ohio which I visited. Here we see our capacity to create decentralized learning communities in which teachers can take initiatives in designing use of computer technology to meet their goals. Students, administrators and parents join with teachers in the explorations. Each new use opens other possibilities. It feels freeing instead of controlling. In terms of our educational history we could say that we need <u>both</u> Thorndike skill training and the Deweyan meaning seeking parts of our tradition. We need the will to make the powerful tool of computer assisted instruction subordinate to the Deweyan meaning seeking needs of both teachers and students.

It is time to close. A title like "The Violation of People at Work in Schools" conveys an impression of anger. I am angry about teachers feeling hurt, worn down and resentful, yet feeling unable to articulate what is wrong. One of our tasks as professors of education is to help with the articulation.

For me those women teachers of Massachusetts put their finger on a key insight: "It isn't our psyches that need massaging," they said. "The source of our troubles is in the structure of the schools and its effects on our working relations with each other, with administration, with the kids, and with learning."

Let's accept the working proposition that Deborah Meier articulated: "serious rooted change cannot happen unless the knowledge of those who do the job is tapped."[23] That means putting teachers in charge by structural change that supports school based initiative, inquiry, and decision making — changes that open time and space so that teachers have time to converse and plan together.

I am suggesting also that we can get to the deeper issues about that structural problem and begin to use blunt language about what is going on. Michael Harrington in The Politics at God's Funeral helps. The crisis of our time, he says, is a crisis of the human spirit, and we have to give up the illusion that we can talk adequately about the real problems of our lives and our work by using only the bland, value free language of technocratic reform.

Foucault and Becker helped me see that the structure those caring teachers were pointing to as the source of their burnout, was a manifestation of a much broader structural problem — the lifeless bureaucratic "Perfect Gaze" control systems that are killing our spirits in both late corporate capitalism and East Bloc communism.

Rationalized functionalism, with hierarchical surveillance, impoverishes the human spirit by denying people access to their dignity and personal enthusiasms. It is crazy-making.

Ernest Becker says that when these structures threaten the core of who we are as homo poeta, we should call them what they are -- structures of evil.

The situation calls for resistance and school people need allies to resist. I was happy to find a greenshoot challenge to sterile scientific management in the work world. The movement toward democratic socio-technical work explores how democratic values can be combined with technological innovation -- the same task that needs exploration in the schools. Our reach must be for the ideal stated by Kant: We must try to achieve maximum individuality within maximum community. Sterile control models allow access to neither individuality nor community. We are

cheated of the strengths we need to meet the awesome challenges of the coming 21st century.

Having taken such a lofty conceptual flight I want to end by returning to the reality of contemporary school life. The choice between architect and bee is not fictional fantasy. It is being played out in two major American school systems.

In my home town of St. Louis a complex system of teacher evaluation has been introduced based, in part, on student scores on standardized tests. The predictable charges of cheating occur with lurid press headlines. A School Board member responds by setting up his own system of surveillance: a telephone hotline which encourages students, teachers, or staff members to report to him anonymously suspicions of teacher cheating. The plummeting of trust, morale and care are "externalities," not counted in the evaluation equations. By equating examination scores with significant learning this newest panopticon creates a facade of "educational excellence" which cheats kids who can least afford it.

Meanwhile, in Detroit, a very different and risky gamble is being tried with major support from Detroit unions, corporations and foundations. An effort is being launched to introduce into the schools the philosophy and techniques of democratic socio-technical work theory from the level of classroom practice, through teacher and administrator relationships, all the way up to the School Board/Teacher's Union Core Committee. The project is directed by Neal Herrick who has had a long history of pioneering such efforts through the United Auto Workers and the Union of Public Employees. I deliberately use the term "risky gamble" because we need to recognize how difficult it may be to learn new habits after years of being bent by panopticon controls. Only the reality of desperation has led to this effort to break out.

In these examples we can see the schizophrenia within reform: simultaneous moves toward uniform centralized control, and moves toward school based autonomy with teacher participation and initiative. In both work and schools we confront

the choice — architect or bee -- the choice of who we want to be as a people for entering that third millennium.

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